6. Schematic Diagrams

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Note

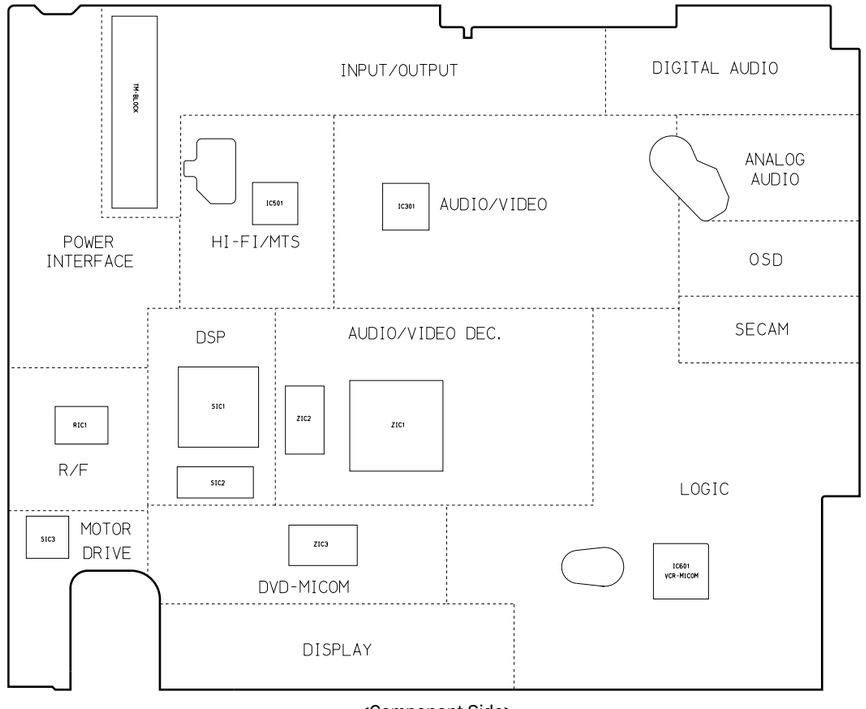
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

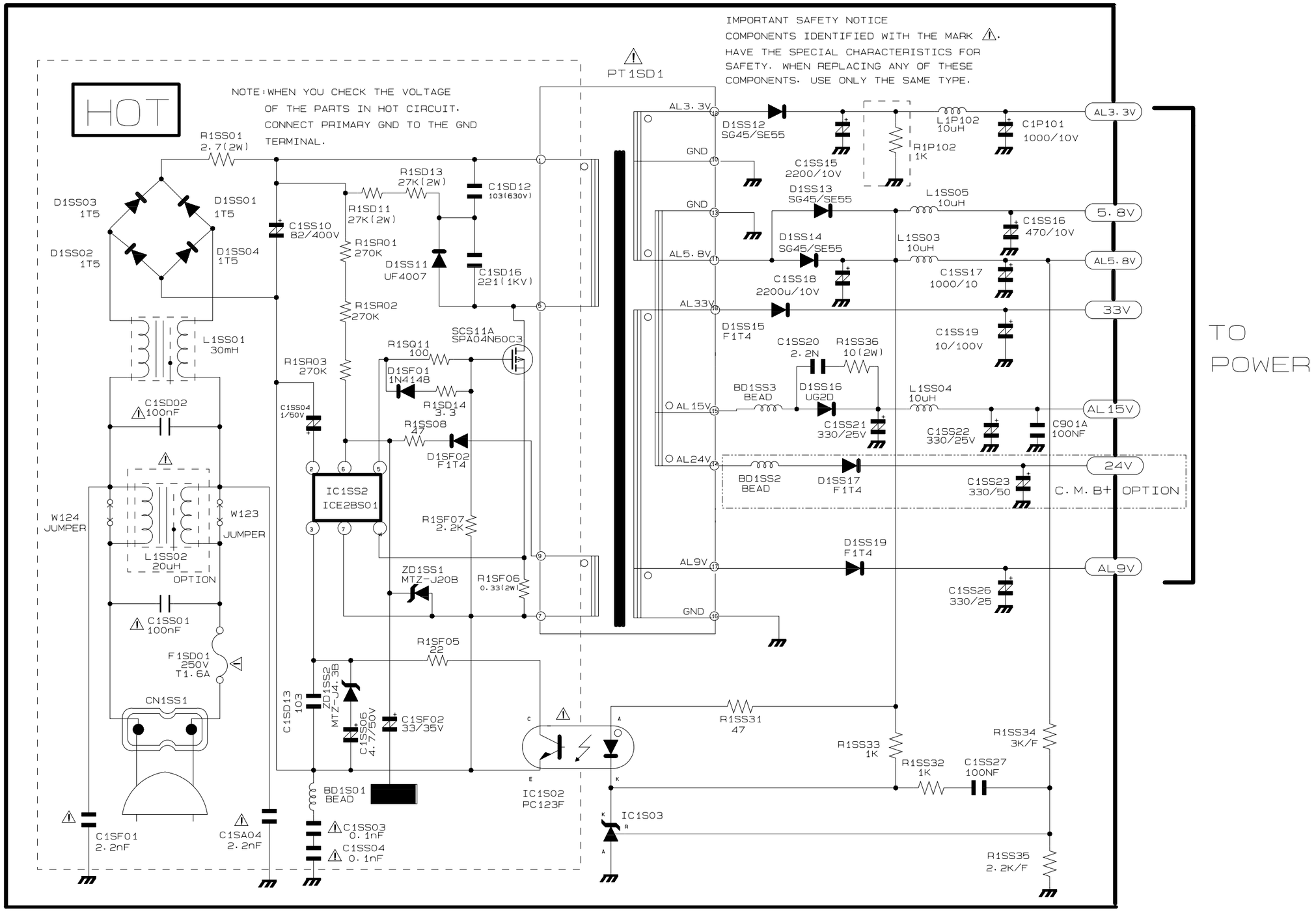
Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components.
Use only the same type.

◆ Block Identification of Main PCB

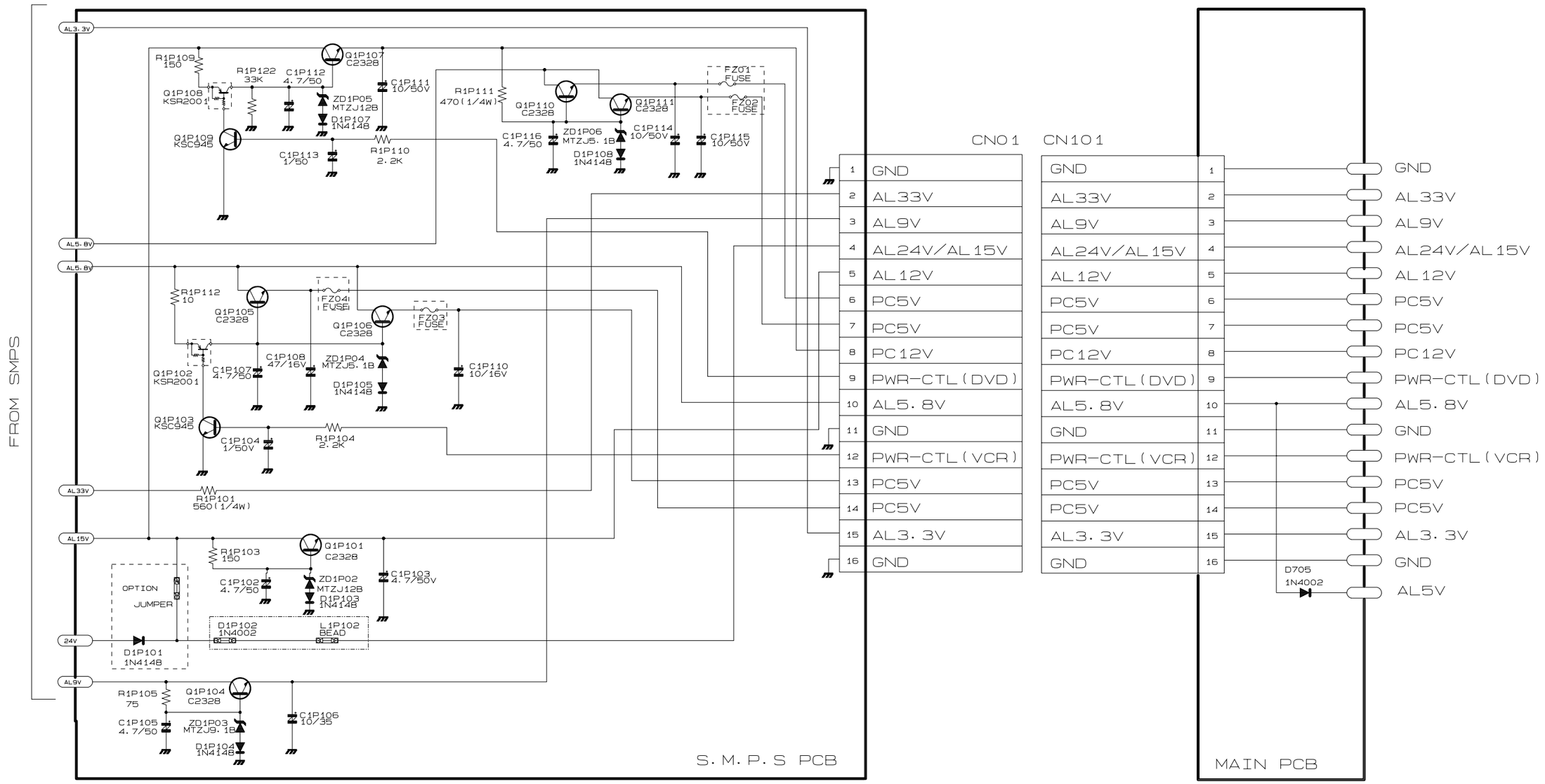


<Component Side>

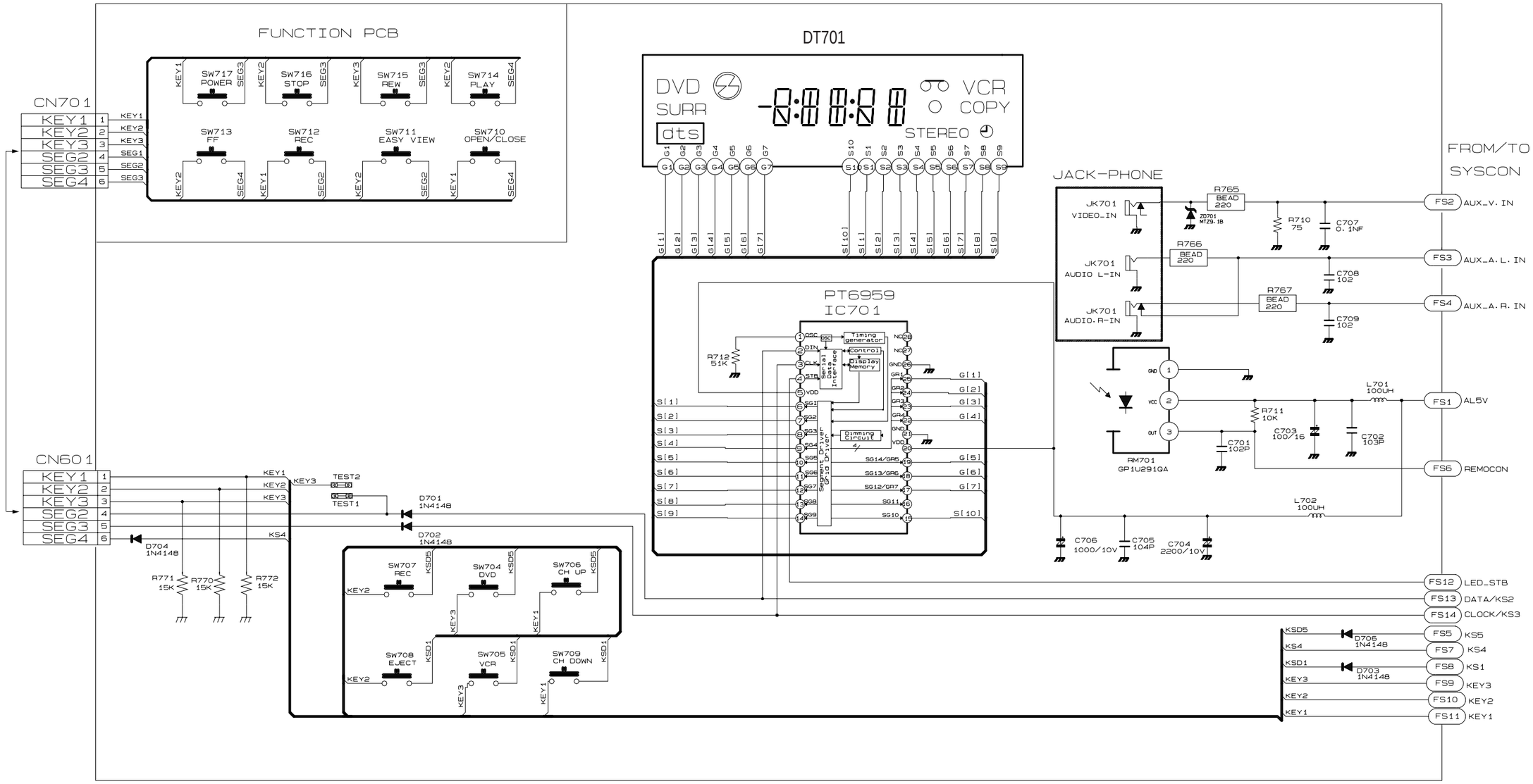
6-1 S.M.P.S.


IMPORTANT SAFETY NOTICE
COMPONENTS IDENTIFIED WITH THE MARK ⚠.
HAVE THE SPECIAL CHARACTERISTICS FOR SAFETY. WHEN REPLACING ANY OF THESE COMPONENTS. USE ONLY THE SAME TYPE.
HOT
NOTE: WHEN YOU CHECK THE VOLTAGE OF THE PARTS IN HOT CIRCUIT. CONNECT PRIMARY GND TO THE GND TERMINAL.
PT1SD1
R1SS01 2.7(2W)
D1SS03 1T5
D1SS01 1T5
D1SS02 1T5
D1SS04 1T5
C1SS10 82/400V
R1SD13 27K(2W)
R1SD11 27K(2W)
C1SD12 103(630V)
R1SR01 270K
D1SS11 UF4007
C1SD16 221(1KV)
R1SR02 270K
R1SR03 270K
L1SS01 30mH
SCS11A SPA04N60C3
R1SQ11 100
D1SF01 1N4148
R1SD14 3.3
R1SS08 47
D1SF02 F1T4
C1SS04 1/50V
C1SD02 100nF
IC1SS2 ICE2BS01
R1SF07 2.2K
W124 JUMPER
W123 JUMPER
L1SS02 20uH OPTION
C1SS01 100nF
F1SD01 250V T1.6A
CN1SS1
ZD1SS1 MTZ-J20B
R1SF06 0.33(2W)
R1SF05 22
C1SD13 103
ZD1SS2 MTZ-J4.3B
C1SS06 4.7/50V
C1SF02 33/35V
BD1SS01 BEAD
C1SF01 2.2nF
C1SA04 2.2nF
C1SS03 0.1nF
C1SS04 0.1nF
IC1SO2 PC123F
R1SS31 47
R1SS33 1K
R1SS32 1K
C1SS27 100NF
R1SS34 3K/F
IC1SO3
R1SS35 2.2K/F
AL3.3V
GND
AL5.8V
AL33V
AL15V
AL24V
AL9V
D1SS12 SG45/SE55
C1SS15 2200/10V
R1P102 1K
L1P102 10uH
C1P101 1000/10V
D1SS13 SG45/SE55
L1SS05 10uH
C1SS16 470/10V
D1SS14 SG45/SE55
L1SS03 10uH
C1SS17 1000/10
C1SS18 2200u/10V
D1SS15 F1T4
C1SS19 10/100V
C1SS20 2.2N
R1SS36 10(2W)
BD1SS3 BEAD
D1SS16 UG2D
L1SS04 10uH
C1SS21 330/25V
C1SS22 330/25V
C901A 100NF
BD1SS2 BEAD
D1SS17 F1T4
C1SS23 330/50
C.M.B+ OPTION
D1SS19 F1T4
C1SS26 330/25
5.8V
33V
24V
TO POWER

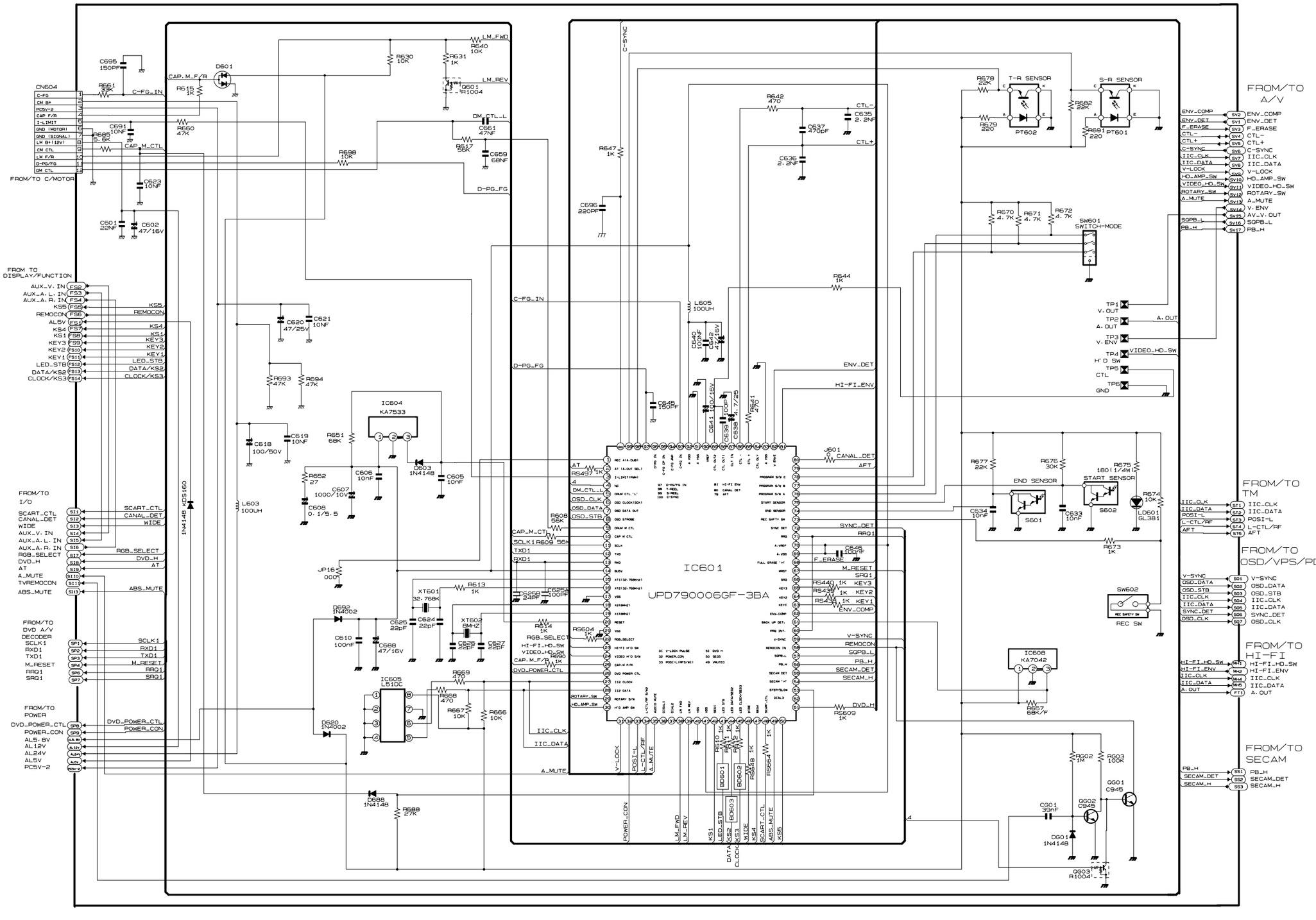
6-2 Power Drive



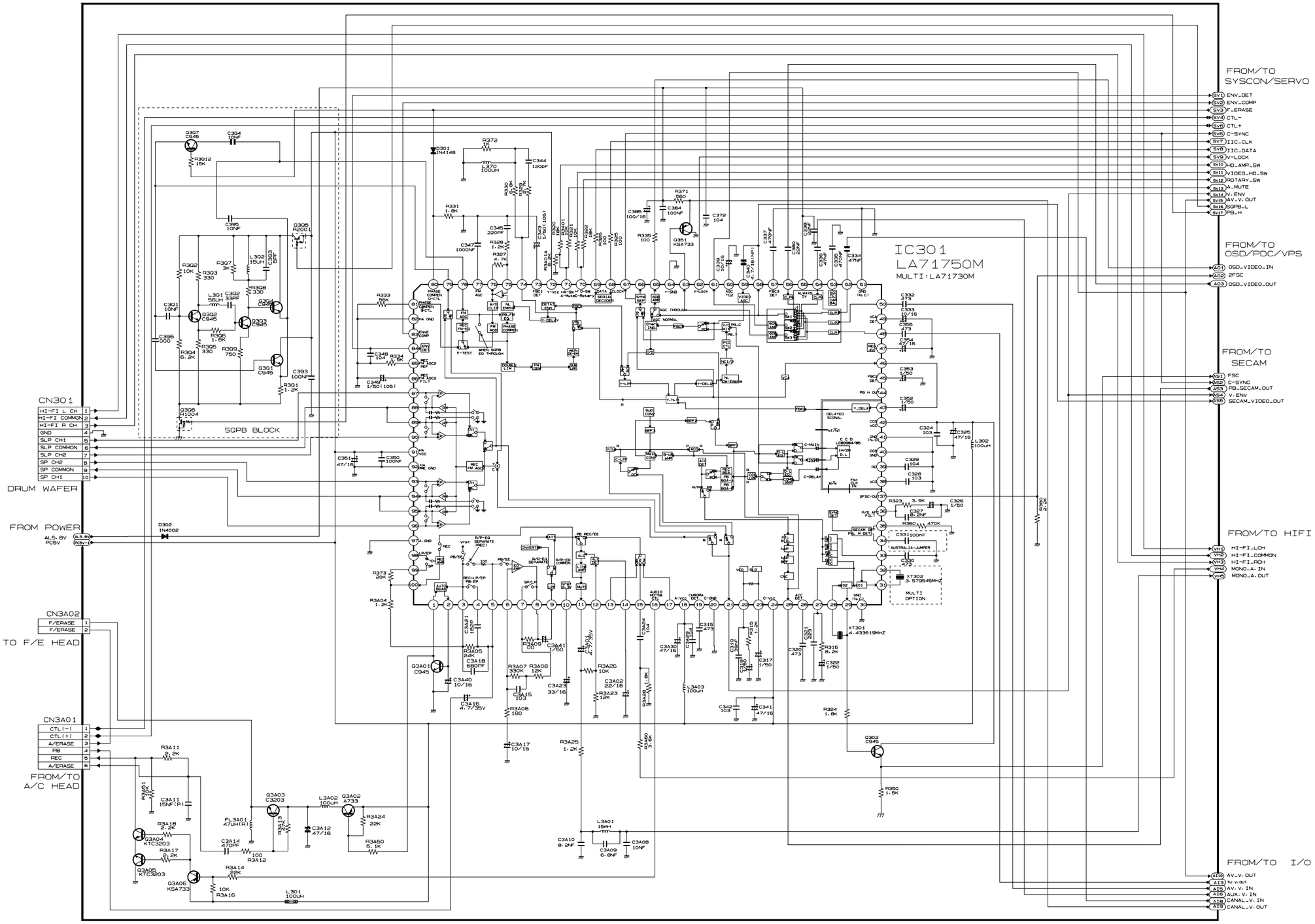
6-3 Display/Function



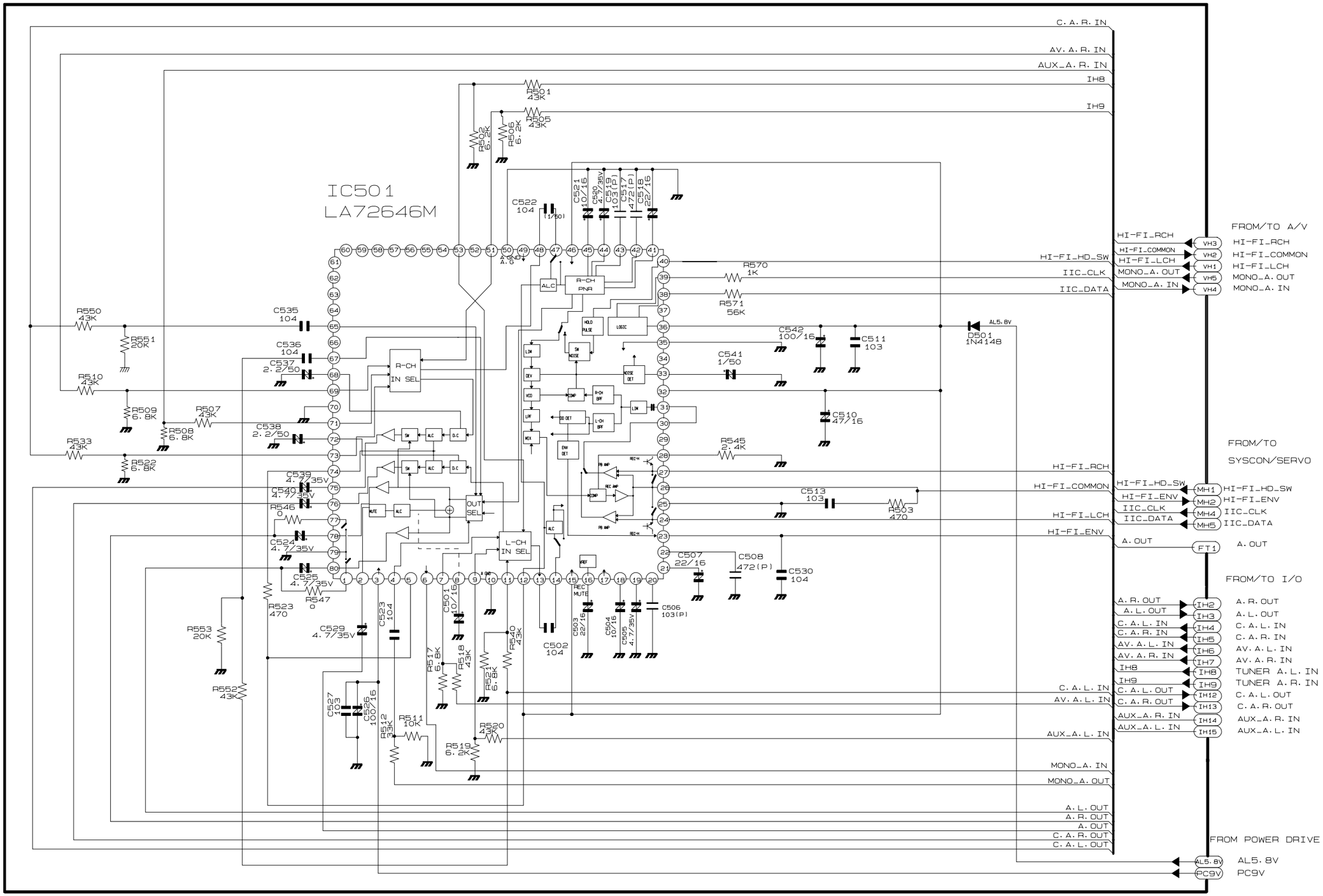
6-4 System Control/Servo



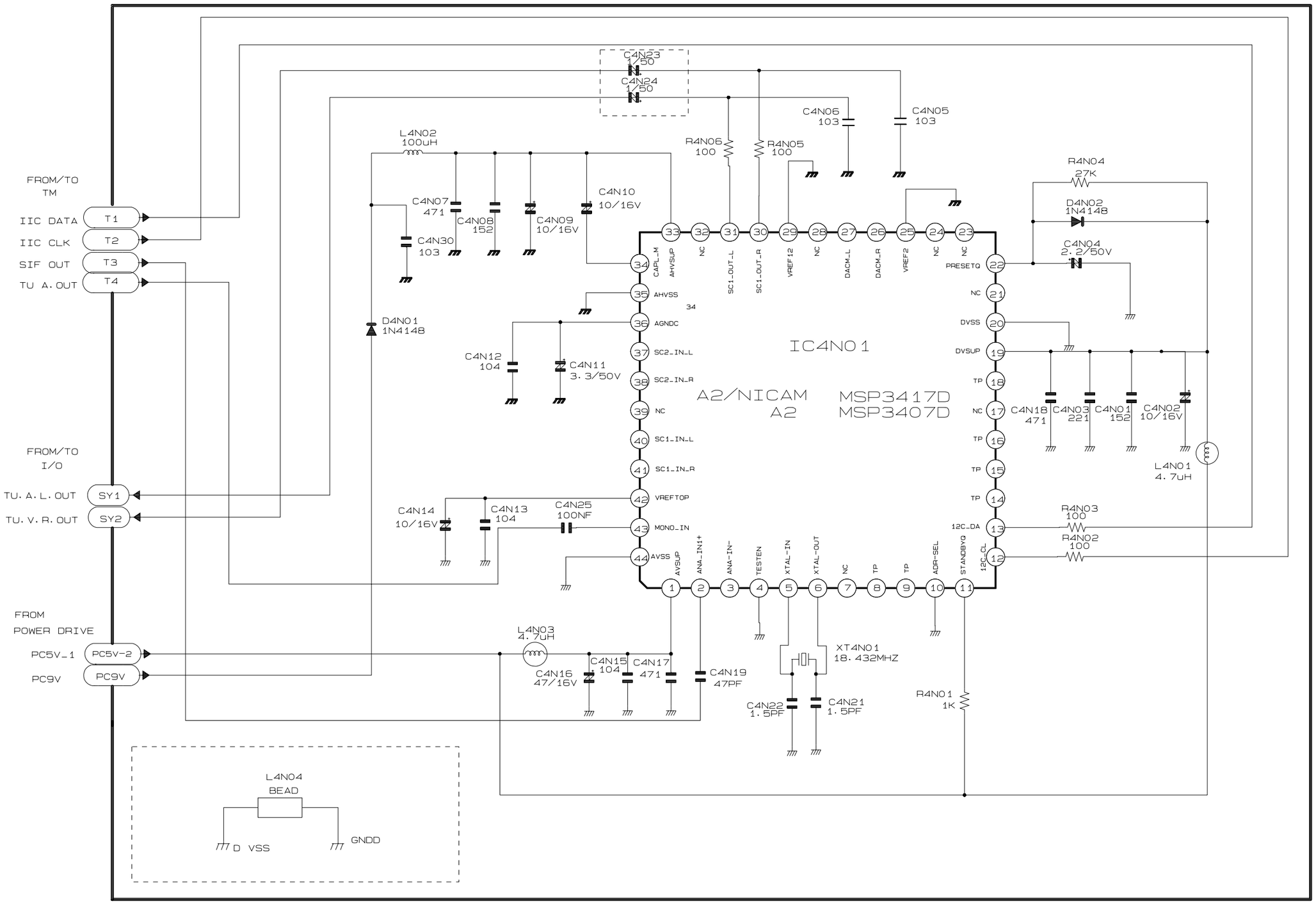
6-5 A/V


IC301
LA71750M
MULTI:LA71730M
FROM/TO SYSCON/SERVO
SV1 ENV_DET
SV2 ENV_COMP
SV3 F_ERASE
SV4 CTL-
SV5 CTL+
SV6 C-SYNC
SV7 IIC_CLK
SV8 IIC_DATA
SV9 V-LOCK
SV10 HD_AMP_SW
SV11 VIDEO_HD_SW
SV12 ROTARY_SW
SV13 A_MUTE
SV14 V-ENV
SV15 AV_V-OUT
SV16 SQPB_L
SV17 PB_H
FROM/TO OSD/PDC/VPS
AO1 OSD_VIDEO_IN
AO2 2FSC
AO3 OSD_VIDEO_OUT
FROM/TO SECAM
AS1 FSC
AS2 C-SYNC
AS3 PB_SECAM_OUT
AS4 V-ENV
AS5 SECAM_VIDEO_OUT
FROM/TO HIFI
VH1 HI-FI_LCH
VH2 HI-FI_COMMON
VH3 HI-FI_RCH
VH4 MONO_A-IN
VH5 MONO_A-OUT
FROM/TO I/O
AI10 AV_V-OUT
AI3 TU V-OUT
AI5 AV-V-IN
AI6 AUX-V-IN
AI8 CANAL_V-IN
AI9 CANAL_V-OUT
CN301
HI-FI L CH 1
HI-FI COMMON 2
HI-FI R CH 3
GND 4
SLP CH1 5
SLP COMMON 6
SLP CH2 7
SP CH2 8
SP COMMON 9
SP CH1 10
DRUM WAFER
FROM POWER
AL5.8V
PC5V
D302 1N4002
CN3A02
F/ERASE 1
F/ERASE 2
TO F/E HEAD
CN3A01
CTL(-) 1
CTL(+) 2
A/ERASE 3
PB 4
REC 5
A/ERASE 6
FROM/TO A/C HEAD
SQPB BLOCK
MULTI OPTION
XT302 3.579545MHz
XT301 4.433619MHz
Q3A03 C3203
Q3A02 A733
Q3A04 KTC3203
Q3A05 KTC3203
Q3A06 KSA733
Q302 C945
L301 100UH
L302 100UH
L303 100UH
L3A01 15MH
FL3A01 47UH(R)

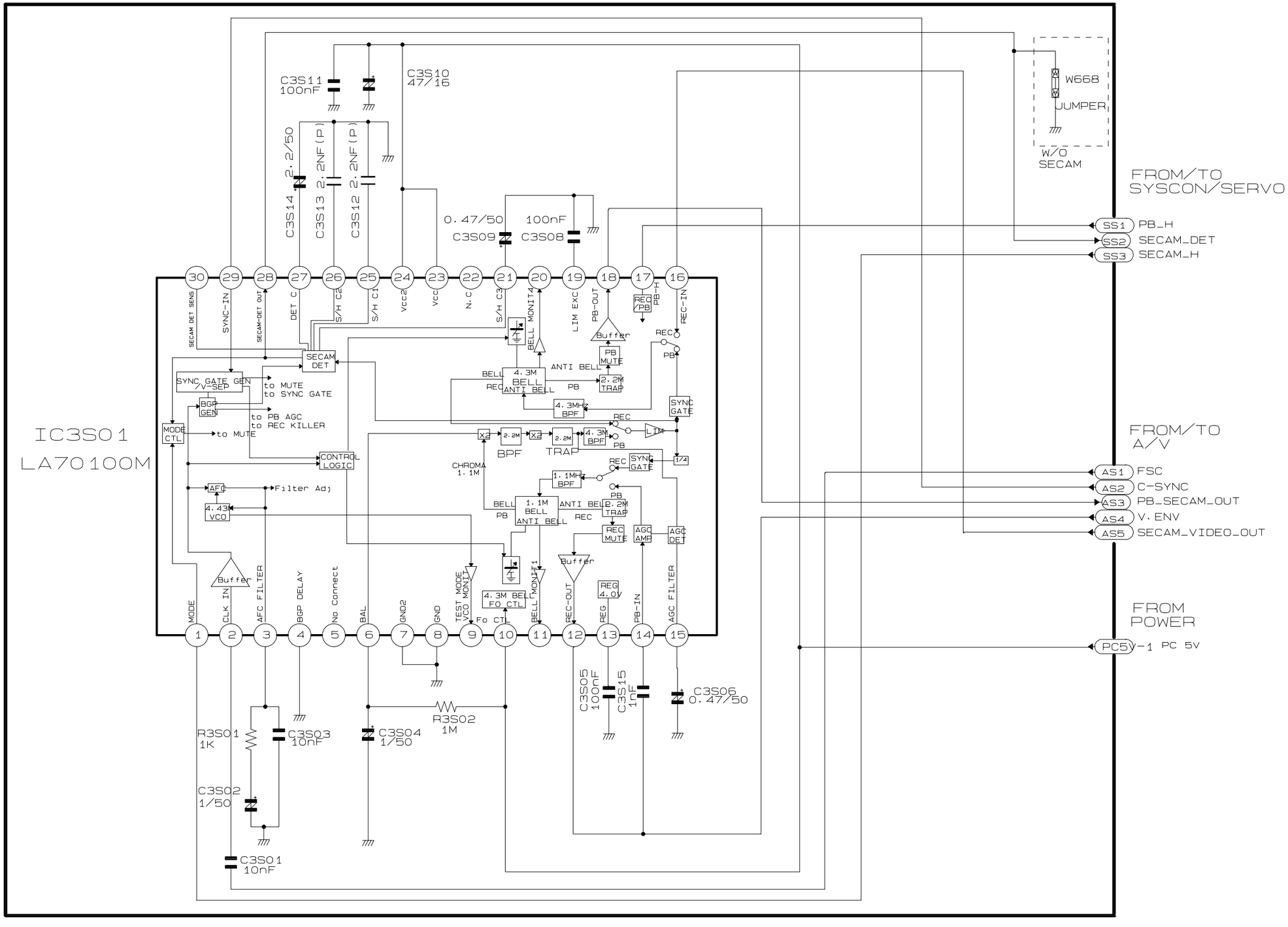
6-6 Hi-Fi


IC501
LA72646M
C. A. R. IN
AV. A. R. IN
AUX_A. R. IN
IH8
IH9
HI-FI_HD_SW
IIC_CLK
IIC_DATA
HI-FI_RCH
HI-FI_COMMON
HI-FI_LCH
MONO_A. OUT
MONO_A. IN
FROM/TO A/V
VH3 HI-FI_RCH
VH2 HI-FI_COMMON
VH1 HI-FI_LCH
VH5 MONO_A. OUT
VH4 MONO_A. IN
FROM/TO SYSCON/SERVO
MH1 HI-FI_HD_SW
MH2 HI-FI_ENV
MH4 IIC_CLK
MH5 IIC_DATA
A. OUT
FT1 A. OUT
FROM/TO I/O
A. R. OUT
A. L. OUT
C. A. L. IN
C. A. R. IN
AV. A. L. IN
AV. A. R. IN
IH8 TUNER A. L. IN
IH9 TUNER A. R. IN
C. A. L. OUT
C. A. R. OUT
AUX_A. R. IN
AUX_A. L. IN
FROM POWER DRIVE
AL5. 8V
PC9V
R-CH IN SEL
L-CH IN SEL
OUT SEL
R-CH PNR
ALC
LOGIC
HOLD PULSE
NOISE DET
REC MUTE
R501 43K
R505 43K
R502 6.2K
R504 5.6K
R570 1K
R571 56K
R550 43K
R551 20K
R510 43K
R509 6.8K
R507 43K
R508 6.8K
R533 43K
R522 6.8K
R546 0
R547 0
R523 470
R553 20K
R552 43K
R545 2.4K
R503 470
R517 6.8K
R518 43K
R521 6.8K
R540 43K
R511 10K
R512 33K
R519 6.2K
R520 43K
C521 10/16
C529 4.7/35V
C519 103(P)
C517 472(P)
C518 22/16
C522 104
C535 104
C536 104
C537 2.2/50
C538 2.2/50
C539 4.7/35V
C540 4.7/35V
C524 4.7/35V
C525 4.7/35V
C529 4.7/35V
C523 104
C501 10/16
C527 103
C526 100/16
C502 104
C503 22/16
C504 10/16
C505 4.7/35V
C506 103(P)
C507 22/16
C508 472(P)
C530 104
C513 103
C542 100/16
C511 103
C541 1/50
C510 47/16
D501 1N4148
AL5.8V

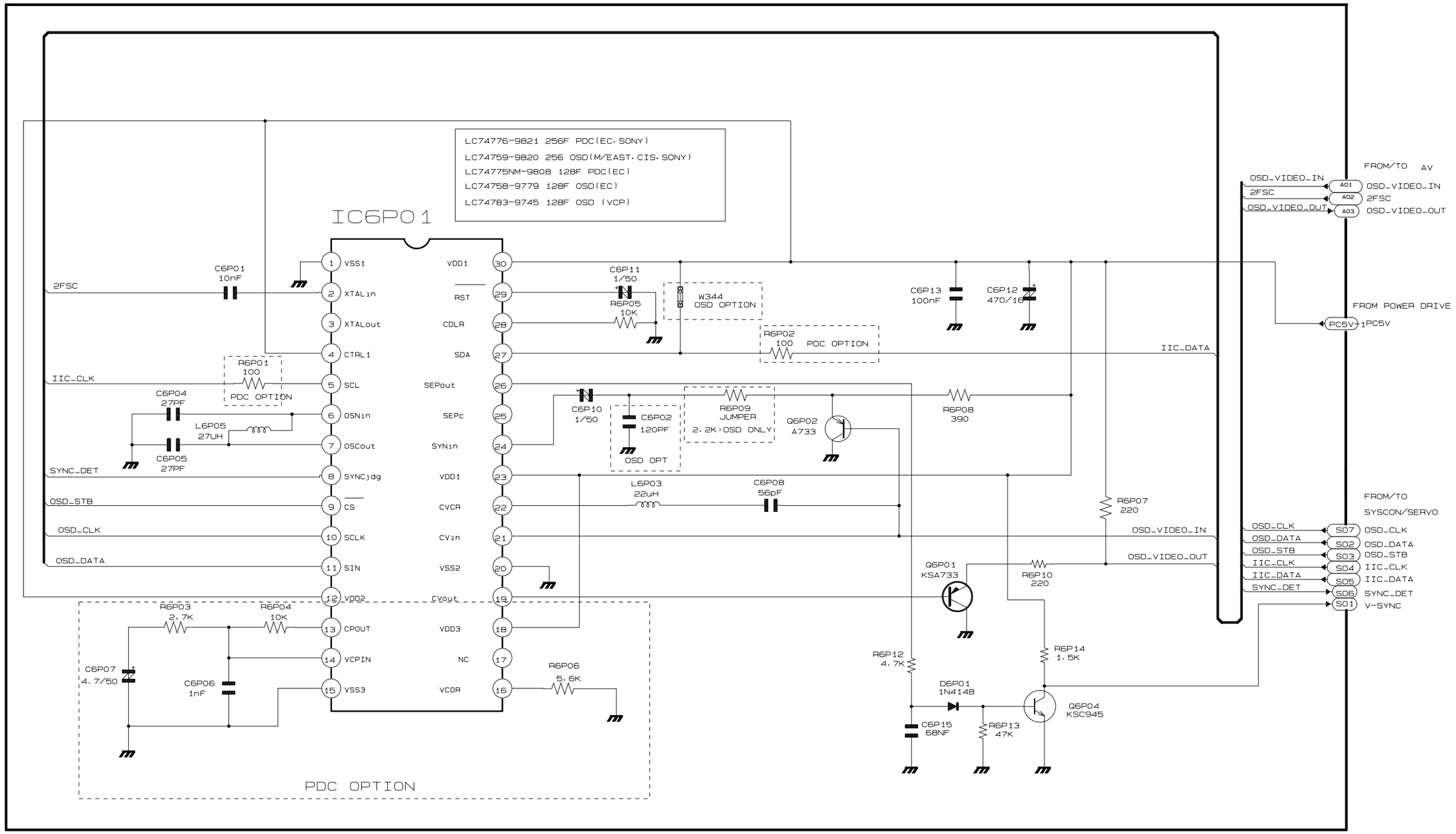
6-7 A2/NICAM


FROM/TO
TM
IIC DATA
IIC CLK
SIF OUT
TU A.OUT
T1
T2
T3
T4
FROM/TO
I/O
TU.A.L.OUT
TU.V.R.OUT
SY1
SY2
FROM
POWER DRIVE
PC5V_1
PC9V
PC5V-2
PC9V
C4N23
1/50
C4N24
1/50
L4N02
100uH
R4N06
100
R4N05
100
C4N06
103
C4N05
103
C4N07
471
C4N08
152
C4N09
10/16V
C4N10
10/16V
C4N30
103
D4N01
1N4148
C4N12
104
C4N11
3.3/50V
C4N14
10/16V
C4N13
104
C4N25
100NF
L4N03
4.7uH
C4N16
47/16V
C4N15
104
C4N17
471
C4N19
47PF
XT4N01
18.432MHZ
C4N22
1.5PF
C4N21
1.5PF
R4N01
1K
R4N04
27K
D4N02
1N4148
C4N04
2.2/50V
C4N18
471
C4N03
221
C4N01
152
C4N02
10/16V
L4N01
4.7uH
R4N03
100
R4N02
100
IC4N01
A2/NICAM
A2
MSP3417D
MSP3407D
33 CAPL_M
32 AHVSUP
31 NC
30 SC1_OUT_L
29 SC1_OUT_R
28 VREF12
27 NC
26 DACM_L
25 DACM_R
24 VREF2
23 NC
22 PRESETQ
21 NC
20 DVSS
19 DVSUP
18 TP
17 NC
16 TP
15 TP
14 TP
13 I2C_DA
12 I2C_CL
11 STANDBYQ
10 ADR-SEL
9 TP
8 TP
7 NC
6 XTAL-OUT
5 XTAL-IN
4 TESTEN
3 ANA-IN-
2 ANA-IN+
1 AVSUP
34 AHVSS
35 AGNDC
36 SC2_IN_L
37 SC2_IN_R
38 NC
39 SC1_IN_L
40 SC1_IN_R
41 VREFTOP
42 MONO_IN
43 AVSS
44
L4N04
BEAD
D VSS
GNDD

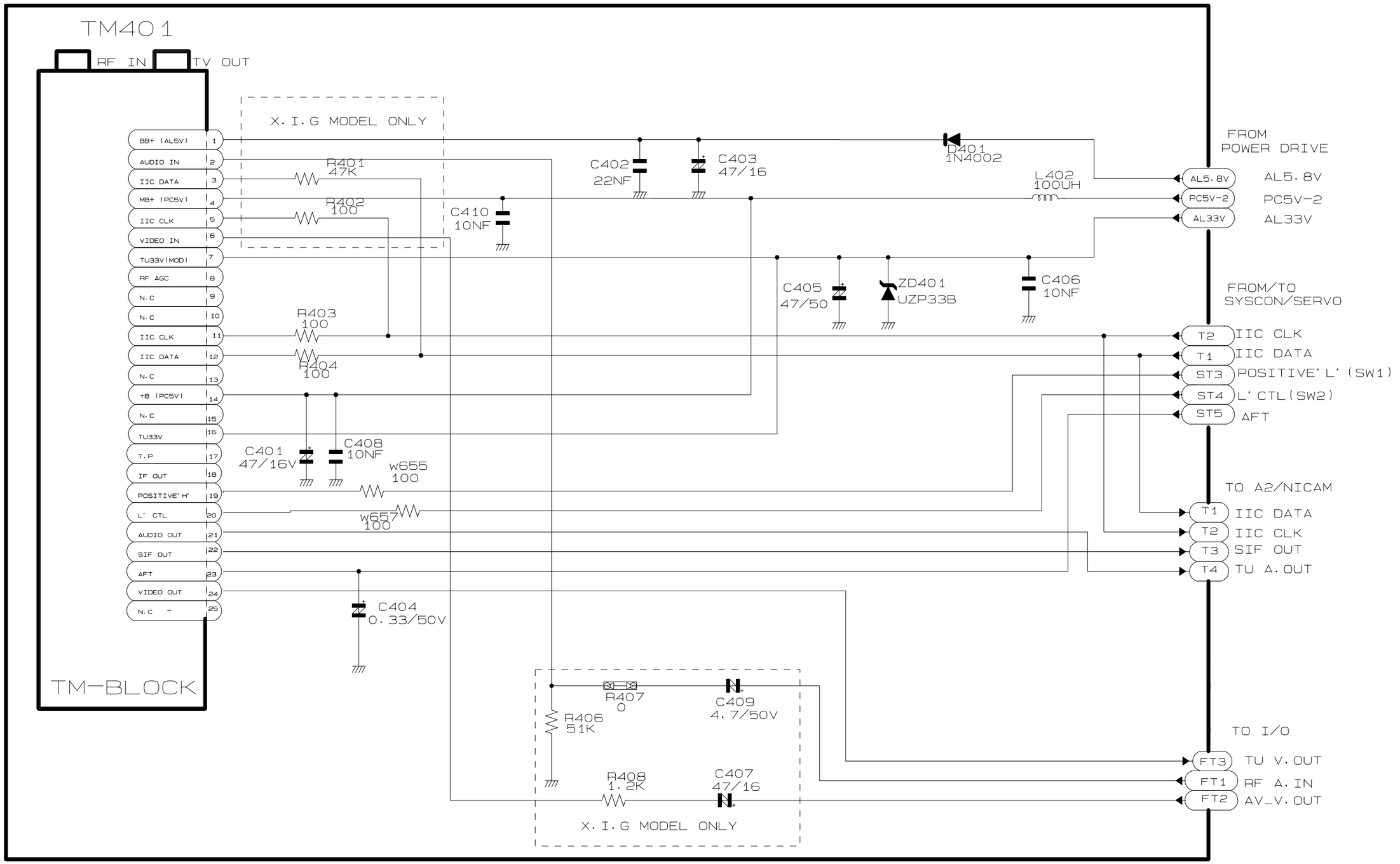
6-8 SECAM (Option)



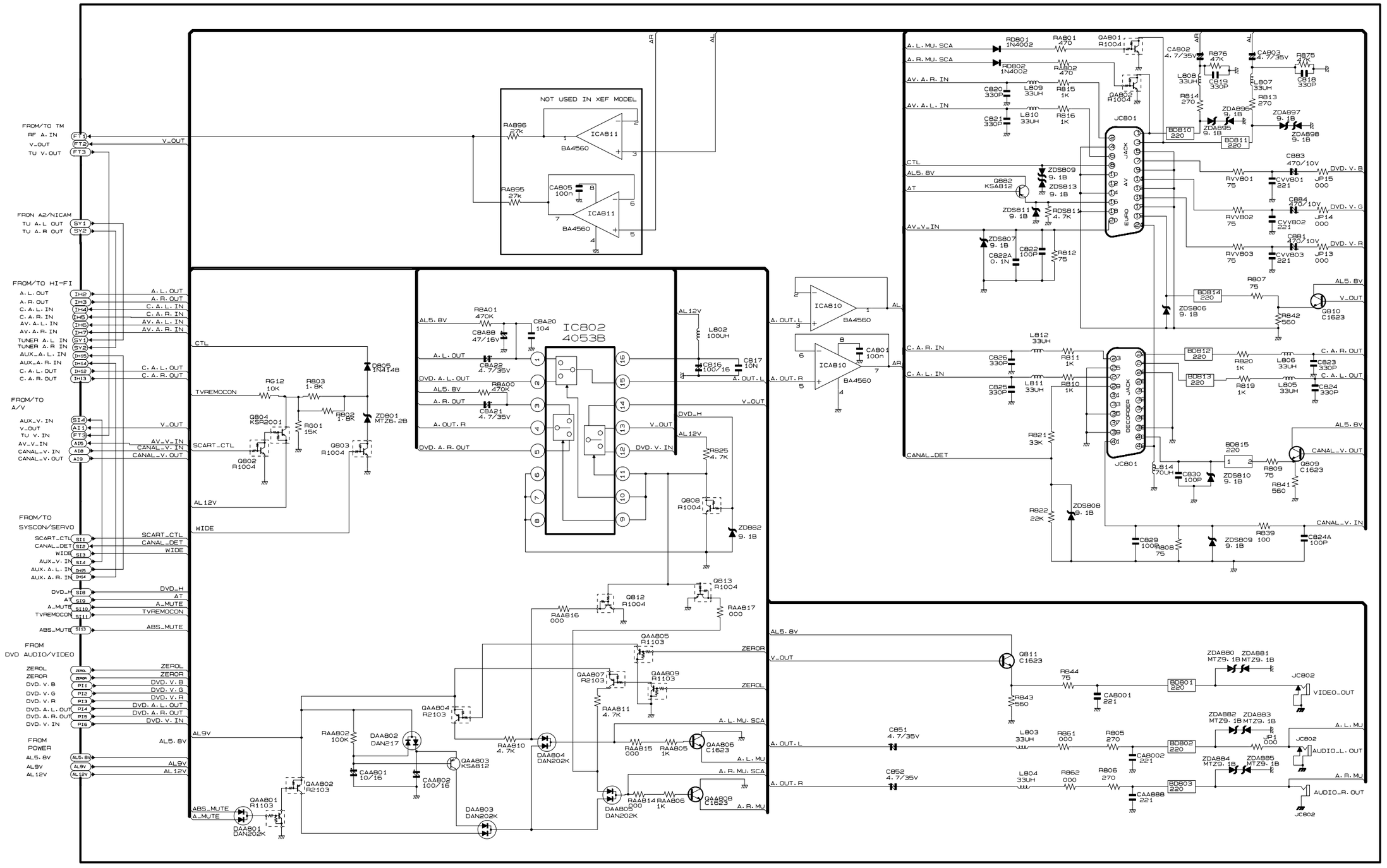
6-9 OSD/VPS/PDC



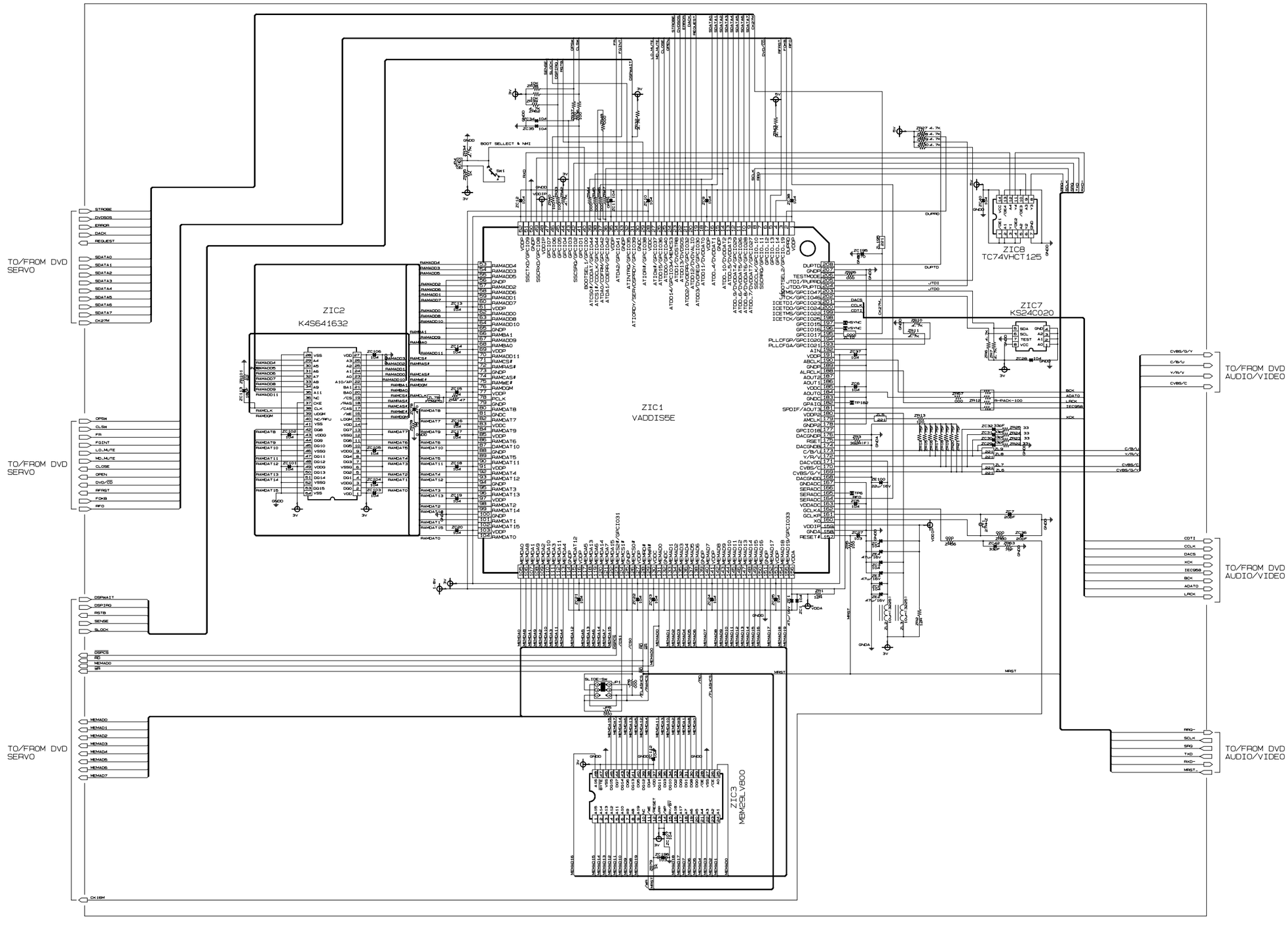
6-10 TM


TM401
RF IN
TV OUT
X.I.G MODEL ONLY
BB+ (AL5V) 1
AUDIO IN 2
IIC DATA 3
MB+ (PC5V) 4
IIC CLK 5
VIDEO IN 6
TU33V(MOD) 7
RF AGC 8
N.C 9
N.C 10
IIC CLK 11
IIC DATA 12
N.C 13
+B (PC5V) 14
N.C 15
TU33V 16
T.P 17
IF OUT 18
POSITIVE'H' 19
L' CTL 20
AUDIO OUT 21
SIF OUT 22
AFT 23
VIDEO OUT 24
N.C - 25
R401 47K
R402 100
R403 100
R404 100
C401 47/16V
C408 10NF
w655 100
w657 100
C404 0.33/50V
C410 10NF
C402 22NF
C403 47/16
D401 1N4002
L402 100UH
C405 47/50
ZD401 UZP33B
C406 10NF
R407 0
C409 4.7/50V
R406 51K
R408 1.2K
C407 47/16
X.I.G MODEL ONLY
TM-BLOCK
FROM POWER DRIVE
AL5.8V
PC5V-2
AL33V
FROM/TO SYSCON/SERVO
T2 IIC CLK
T1 IIC DATA
ST3 POSITIVE'L'(SW1)
ST4 L'CTL(SW2)
ST5 AFT
TO A2/NICAM
T1 IIC DATA
T2 IIC CLK
T3 SIF OUT
T4 TU A.OUT
TO I/O
FT3 TU V.OUT
FT1 RF A.IN
FT2 AV_V.OUT

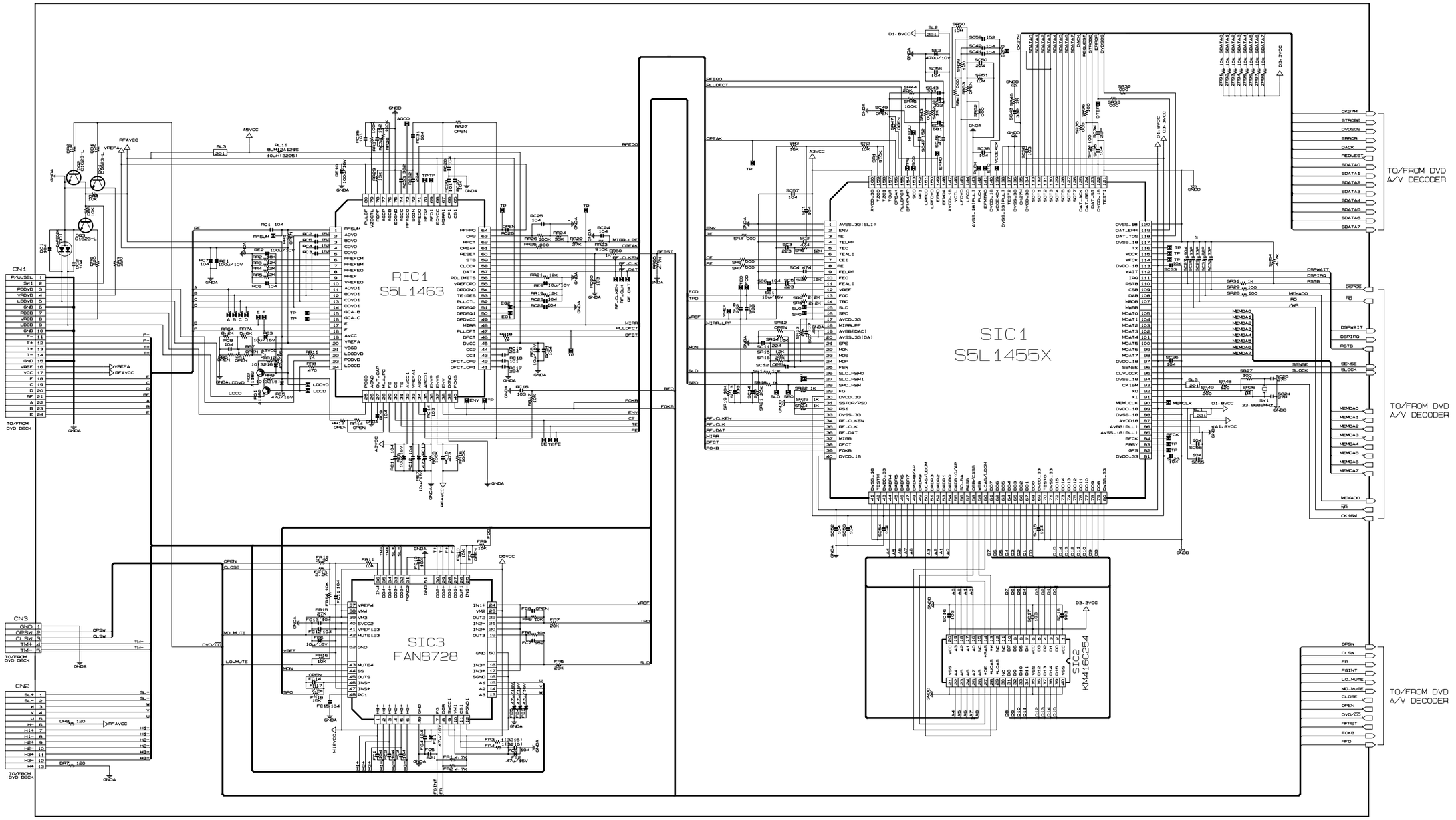
6-11 Input-Output



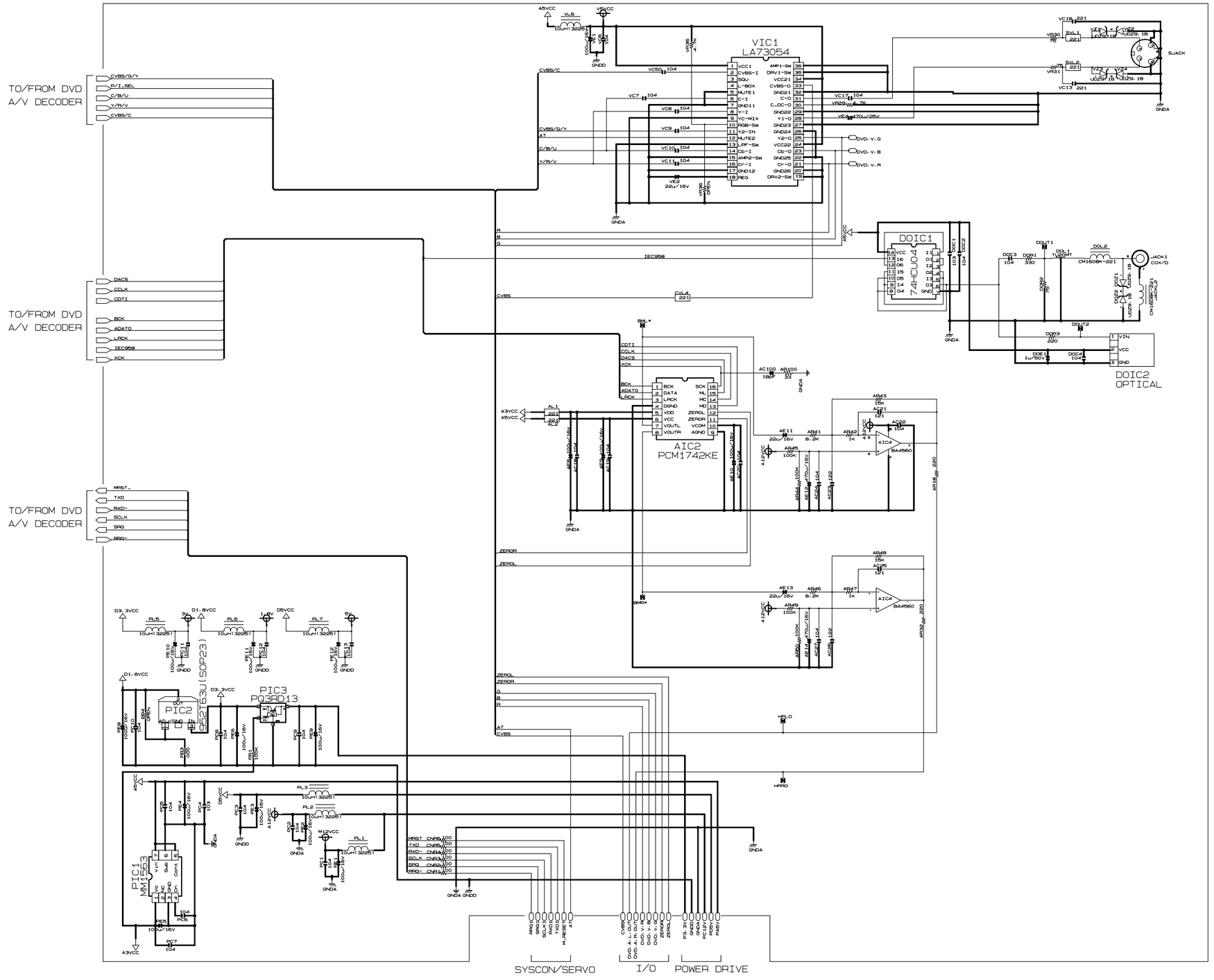
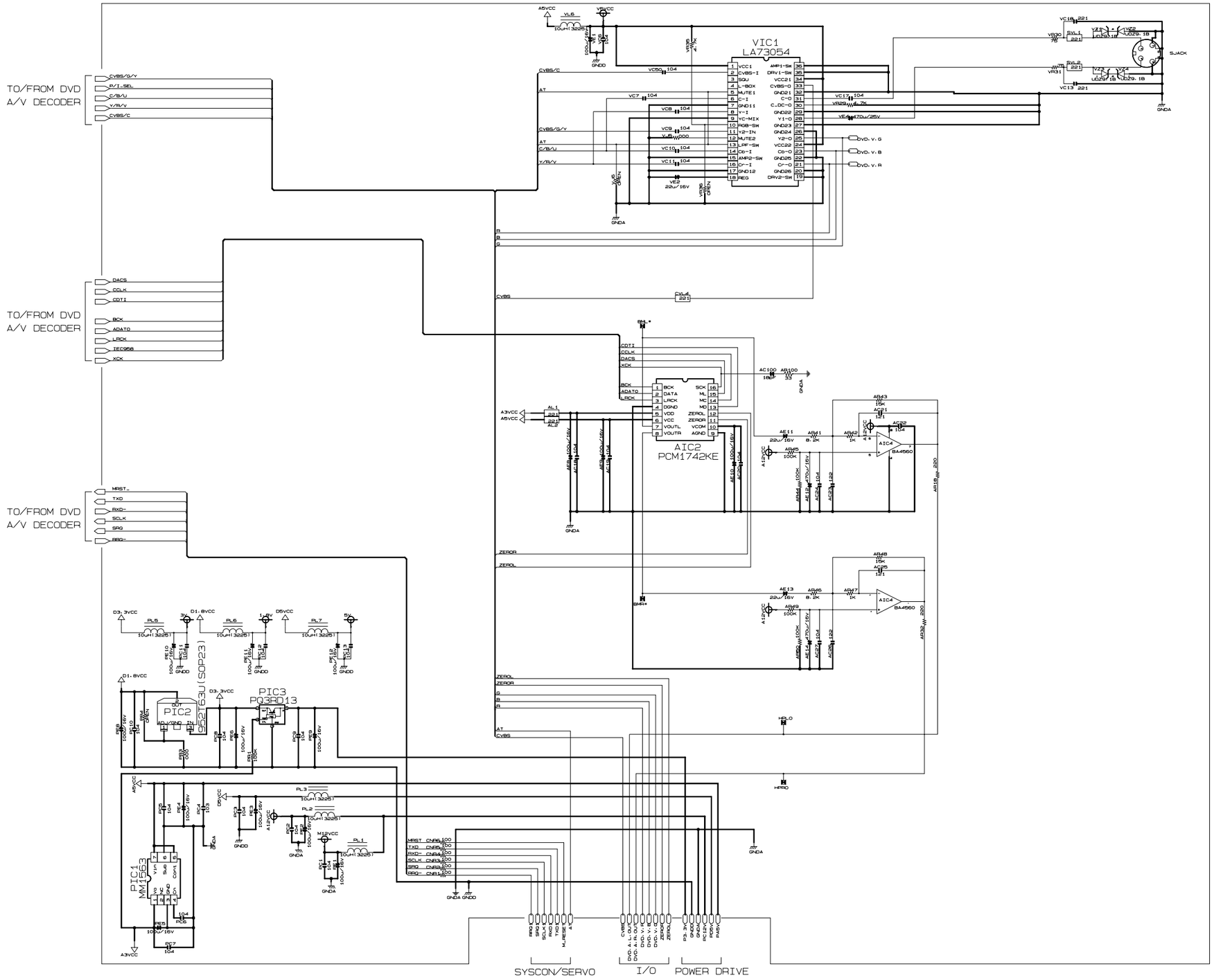
6-12 DVD AV-Decoder



6-13 DVD Servo



6-14 DVD Audio/Video (Only for SV-DVD55)



6-15 DVD Audio/Video (Only for SV-DVD40)